

IN THE CLAIMS:

A listing of the claims, in accordance with the revision of 37 C.F.R. § 1.121, is provided. The listing of claims replaces all prior listings of claims. Please cancel claims 1-16, 23-30 and 32 without prejudice or disclaimer. Please add claims 33 and 34 as shown below.

CLAIM LISTING

Claims 1-16 (Canceled)

17. (Original) A method for monitoring the delivery of a nucleic acid molecule into a cell comprising:

- (a) labeling the nucleic acid molecule;
- (b) delivering labeled nucleic acid molecule into a cell; and
- (c) detecting labeled nucleic acid molecule in the cells by flow cytometry, fluorimetry, cell imaging or fluorescence spectroscopy, as an indication of delivery of nucleic acid molecule into the cells.

18. (Original) The method of claim 17, wherein the nucleic acid molecule is labeled with a thymidine analog.

19. (Original) The method of claim 18, wherein the thymidine analog is iododeoxyuridine or bromodeoxyuridine.

20. (Original) The method of claim 19, wherein a delivery agent comprises a cationic compound, and the nucleic acid molecule is treated therewith.

21. (Previously Presented) The method of claim 20, wherein the compound is selected from the group consisting of N-[1-(2,3-dioleoyloxy)propyl]-N,N,N-trimethylammonium chloride (DOTMA), dioleoylphosphatidylethanolamine (DOPE), 2,3-dioleoyloxy-N-[2(spermine-carboxamido)ethyl]-N,N-dimethyl-1-propanaminiumtrifluoroacetate (DOSPA), $C_{52}H_{106}N_6O_4 \bullet 4CF_3CO_2H$, $C_{88}H_{178}N_8O_4S_2 \bullet 4CF_3CO_2H$, $C_{40}H_{84}NO_3P \bullet CF_3CO_2H$, $C_{50}H_{103}N_7O_3 \bullet 4CF_3CO_2H$, $C_{55}H_{116}N_8O_2 \bullet 6CF_3CO_2H$, $C_{49}H_{102}N_6O_3 \bullet 4CF_3CO_2H$, $C_{44}H_{89}N_5O_3 \bullet 2CF_3CO_2H$, $C_{41}H_{78}NO_8P$, $C_{100}H_{206}N_{12}O_4S_2 \bullet 8CF_3CO_2H$, $C_{162}H_{330}N_{22}O_9 \bullet 13CF_3CO_2H$, $C_{43}H_{88}N_4O_2 \bullet 2CF_3CO_2H$, $C_{43}H_{88}N_4O_3 \bullet 2CF_3CO_2H$ and (1-methyl-4-(1-octadec-9-enyl-nonadec-10-enylenyl))

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ELECTION

pyridinium chloride.

22. (Original) The method of claim 18, wherein the nucleic acid molecule is a natural chromosome, an artificial chromosome, a fragment of a chromosome or naked DNA that is greater than at least about 0.6 megabase in size.

Claims 23-30 (Canceled)

31. (Original) The method of claim 17, wherein the cell is selected from the group consisting of a primary cell, an immortalized cell, an embryonic cell, a stem cell, a transformed cells and a tumor cell.

32. (Canceled)

33. (New) The method of claim 17, further comprising:

(d) determining the number of cells containing the label.

34. (New) The method of claim 33, wherein:

delivery is effected in the presence of a test agent; and

the number of cells that contain the label is indicative of the ability of the agent to deliver the nucleic acid molecule into the cell.